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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,566

08/24/2006

Jean Abascal

ABASCAL1

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BROWDY AND NEIMARK, P.L.L.C.  
624 NINTH STREET, NW  
SUITE 300  
WASHINGTON, DC 20001-5303

EXAMINER

BRUTUS, JOEL F

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,566	<b>Applicant(s)</b> ABASCAL, JEAN	
	<b>Examiner</b> JOEL F. BRUTUS	<b>Art Unit</b> 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/24/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Mayol et al (US Pat: 5,357,963).

Regarding claims 1-10, Mayol et al teaches a magnetic drive device enabling a member placed on one side of a non-magnetic wall to be driven by a rotary drive shaft placed on the other side of the wall [see abstract] that anticipates the claimed invention. Mayol et al further teaches the magnetic drive device whose theoretical structure is shown in FIGS. 1 and 2 comprises a drive shaft that is mounted to rotate about an axis in the direction indicated by arrow f, and in the opposite direction [see column 2 lines 23-30]. The drive shaft is intended to impart oscillating motion about an axis orthogonal to the axis a driven member. The drive member is separated from the shaft by a thin wall of non-magnetic material [see column 2 lines 23-30]. The drive shaft carries a magnet which, in the embodiment shown, is in the form of an axially-magnetized peg, offset from the axis, pointing towards the driven member, and fixed to a turntable which is secured to the shaft. The magnet has circular motion imparted thereto when the shaft rotates, and it is advantageously placed in such a manner that its axis intersects the

Art Unit: 3768

axis of rotation at the point where it intersects the oscillation axis of rotation or in the vicinity of said point of intersection [see column 2 lines 33-44].

Mayol et al also teaches the driven member comprises a body fitted with two stub axes that rotate in bearings that define the oscillation axis. The body carries a second magnet designed to move, following the other magnet in such a manner as to maintain a minimum gap between them [see column 2 lines 45-48]. The midplane of the second magnet, which must remain substantially in alignment with the midplane of the other magnet, has a shape that is circular or nearly circular [see column 2 lines 50-53]; the magnet is from of a segment of a cylinder. When the thickness  $e$  of the magnet is large, it is preferable for it to be in the form of a segment of a sphere, a spherical cap [see column 2 lines 55-61]. Figs 3 and 4 show the end portion of an ultrasound probe fitted with a device that complies with the diagrams of FIGS. 1 and 2. The probe comprises a housing closed by a window designed to be applied against a member to be examined (e.g. an organ), generally via a gel for avoiding impedance discontinuities [see column 3 lines 10-19].

Mayol et al teaches an envelope concentric with the housing receives the drive motor. A partition installed transversely in the envelope carries the shaft via a ball bearing that defines the axis. The turntable (examiner points out that limitation is used a rotary driven plate) is installed on the shaft and carries the magnet. The end of the envelope constituting the wall, and the facing face of the magnet are both in the form of spherical caps [see column 3 lines 20-26]. The driven member comprises a body fitted with stub axis that rotate in two bearings carried on an extension of the envelope. The

Art Unit: 3768

body carries the magnet whose outside surface is constituted by a segment of a sphere concentric with the wall [see column 3 lines 28-32]. A recess in the body contains an ultrasound transducer, generally constituted by a piezoelectric ceramic and connected to electronics by means of a cable that passes through the gap between the envelope and the housing. A coupling liquid generally occupies the space delimited by the envelope, the housing, and the window [see column 3 lines 35-40].

Mayol et al teaches providing a sector probe with means enabling echoes in different firing directions to be displayed in their exact relative positions. Such means may include, in particular, a conventional incremental encoder secured to the shaft [see column 3 lines 41-46]; the encoder is advantageously accompanied by a detector enabling a determined angular position of the probe to be sensed. For example, the detector may comprise a Hall-effect sensor carried by the envelope, and a Hall-effect sensor exciting magnet carried by the head. A second magnet may be mounted symmetrically on the head for balance purposes. Since the Hall-effect sensor is subjected to the action of the first magnet in addition to that of the second magnet [see column 3 lines 46-56]. The probe is intended to scan the eye in depth and it includes a single transducer having a front face whose concave shape is such that pseudo-focusing takes place slightly in front of the retina when the window is pressed against the eyelids, as shown diagrammatically in FIG. 6 and see column 3 lines 56-68]. Convex means curving out or bulging outward [see figs 1-2 for the teaching] and the generatrix would be a curved or circular shaped since the outer surface is convex. Sector probe would provide an arc shaped scan. Fig 2 shows the body that contains

Art Unit: 3768

the transducer mounted around an axis parallel to the longitudinal axis and the dotted lines show that the transducer can end as a bevel (bevel is an edge that is not perpendicular but usually about 45 degree, fig 2 clearly show that through the dotted lines). Figs 3-4 show the double walls (envelope and housing) and cylindrical gasket and the radial flange.

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOEL F. BRUTUS whose telephone number is (571)270-3847. The examiner can normally be reached on Mon-Fri 7:30 AM to 5:00 PM (Off alternative Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3768

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. F. B./  
Examiner, Art Unit 3768

/Long V Le/  
Supervisory Patent Examiner, Art Unit 3768